



September, 2021

Volume 4, Issue 1

## Floodplain Management Staff:

Karen McHugh, CFM  
State NFIP Coordinator  
(573) 526-9129  
karen.mchugh@sema.dps.mo.gov

Linda Olsen, CFM  
Advanced Emergency Management Officer  
(573) 526-9115  
linda.olsen@sema.dps.mo.gov

Lynn Welch, CFM  
Floodplain Management Officer  
(573) 526-9135  
lynn.welch@sema.dps.mo.gov

Roger Connell, CFM  
Misc. Professional/part-time  
(573) 526-9169  
roger.connell@sema.dps.mo.gov

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## State Emergency Management Agency (SEMA) Floodplain Management Section

### Issue 1 - FY 2021 - Floodplain Management E-Bulletin

It's the first quarter of Fiscal Year 2021 and time for the first FY21 *Missouri Floodplain Management E-Bulletin*! In case the reader is curious about why the first quarter of FY 21 is in September, the following is an explanation regarding the Community Assistance Program—State Support Services Element (CAP-SSSE) grant cycle. The 2021 Fiscal Year CAP-SSSE period of performance started on July 1, 2021 and ends on June 30, 2022. The four (4) quarters are divided up as follows:

Qtr. 1: July 1, 2021 - September 30, 2021

Qtr. 2: October 1 - December 31, 2021

Qtr. 3: January 1, 2022 - March 31, 2022

Qtr. 4: April 1, 2022 - June 30, 2022

The *Missouri Floodplain Management E-Bulletin* is distributed by email during the last month of each quarter.

We're always looking for flooding photos, elevated structure photos, projects demonstrating stormwater management techniques and "green" projects, so please share them with us! Be sure to include your name, the location, and the date of the photo. Send photos to: karen.mchugh@sema.dps.mo.gov



Photo used with permission from Photographer John Spink/  
Atlanta Journal-Constitution

### Missouri Floodplain and Stormwater Managers Association, INC. (MfSMA)

The annual MfSMA Conference, held at Margaritaville Lake Resort (aka Tan-Tar-A Lake Resort) on September 1st, 2nd, and 3rd, was a great success with over 120 in attendance. The Conference was a hybrid event, with a combination of live in-person and virtual online presentations, and it all played out very well!

During the luncheon on Thursday, Ellie Marr received the *George Riedel Floodplain Manager of the Year Award* for her many years of dedicated service to Floodplain Management in St. Charles County and for her contributions toward the success of our MfSMA Chapter. A heartfelt congratulations to Ellie Marr!



Be sure to plan ahead for next year's MfSMA conference to be held in September, 2022 at Margaritaville Lake Resort in sunny Osage Beach, Missouri.

## Important Information for You to Know: Risk Rating 2.0!

FEMA is updating the National Flood Insurance Program's pricing methodology to communicate flood risk more clearly, so policyholders can make more informed decisions on the purchase of adequate insurance and on mitigation actions to protect against the perils of flooding.

There are two phases of implementation for Risk Rating 2.0:

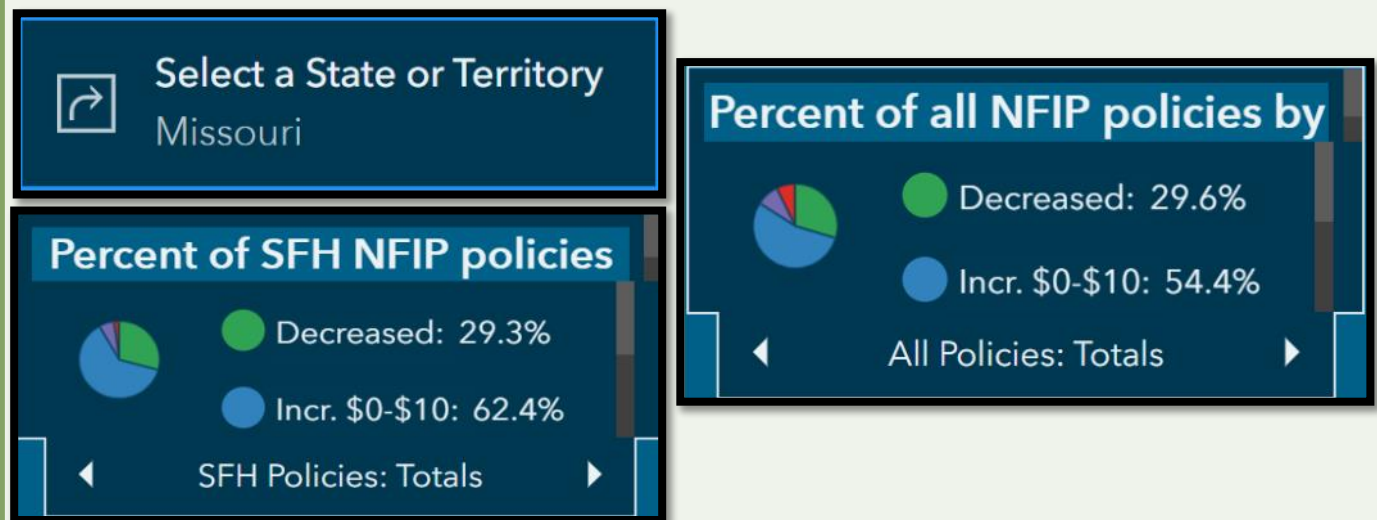
**Phase I: New policies beginning October 1, 2021.** These will be subject to the new rating methodology. In addition, existing policyholders eligible for renewal will be able to take advantage of proposed immediate decreases in their premiums.

**Phase II:** All remaining policies **renewing on or after April 1, 2022.** These will also be subject to the new rating methodology. For the latest information on Risk Rating 2.0, visit [fema.gov](https://www.fema.gov).

The Association of State Floodplain Managers (ASFPM) designed a dashboard to show the FEMA Risk Rating 2.0 projected premium changes by state. The dashboard shows estimated first-year premium changes for two datasets:

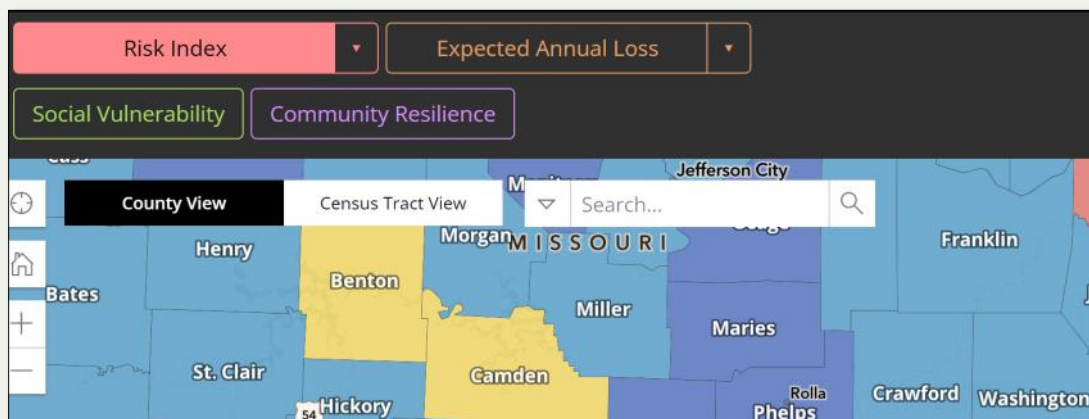
1. All existing NFIP policy holders, and 2. Single-family home policyholders.

To view the ASFPM dashboard follow this link: [no.floods.org/rr2changes](https://no.floods.org/rr2changes)



The [National Risk Index](#) is a new online mapping application from FEMA that identifies communities most at risk for 18 different natural hazards. This application visualizes natural hazard risk metrics and includes data about expected annual losses from natural hazards, social vulnerability and community resilience.

The National Risk Index's interactive web maps are at the county and census tract level and made available via geographic information system (GIS) services for custom analyses. With this data, you can discover a holistic view of your community's risk for natural hazards.



***The ASFPM Foundation Works in Partnership with its Chapters to Strengthen the Floodplain Management Foundation Nationwide.***

The Association of State Floodplain Managers (ASFPM) Foundation (hereafter: the Foundation) was established in 1996 as the charitable arm of ASFPM. The Foundation acts as a forward-looking catalyst for ASFPM, its chapters, and individual members to advance projects, education, and policy initiatives that promote actions leading to reduced flood risk and resilient communities.

The Foundation is a premiere advocate for the floodplain management profession and serves as a voice for floodplain management practitioners, suppliers, and service providers nationwide, and in some cases globally. The Foundation has played a key role in the development of the Certified Floodplain Manager (CFM) certification program, which is basic to establishing and maintaining the credibility of floodplain managers across the country. The Foundation continues to support the profession in many ways that bolster the CFM program. The following describes but a few of these important initiatives:

In February 2020, the ASFPM Foundation released a report titled **“Urban Flooding: Moving Towards Resilience,”** to document important discussions by world class experts who attended the Foundation’s 6<sup>th</sup> assembly of the Gilbert F. White National Policy Forum. The report showcases the in-depth engagement on urban flooding issues by more than 100 experts from local, state, and federal agencies; professional associations; environmental groups; and private organizations. The report can be downloaded from the [ASFPM Foundation website](#).

The ASFPM Foundation announced the award of its 2020-2022 Future Leaders Scholarship to Elizabeth Lacey at the ASFPM Virtual Conference in June 2020. Elizabeth is entering her third year in the Civil Engineering Honors Program at Colorado State University in Fort Collins, Colorado. She is the second student of what we hope are many more to come to receive this \$20,000 per year scholarship with the goal of developing future leaders in the floodplain management field. Elizabeth’s acceptance message can be found on the [ASFPM Foundation Website](#).

The ASFPM Foundation provided funding for, and partnered with, the ASFPM Flood Science Center to develop the **“Flood Mapping for the Nation Report”** and **“Understanding and Managing Flood Risk: A Guide for Elected Officials.”** Both of these documents provide valuable information to floodplain management practitioners and can be found on the [ASFPM Flood Science Center website](#).

The ASFPM Foundation partnered with FEMA Region VIII and Earth Force to sponsor the 2020 Rocky Mountain Environmental Hazards Challenge, now referred to as the [Rise Challenge](#). This is an annual competition that combines project-based learning with the latest research in science, technology, engineering, and mathematic (STEM) education.

Donations are the primary source of funding for the ASFPM Foundation. The importance of contributions in helping the Foundation to sustain its current initiatives and develop new ones cannot be emphasized enough. The goal of reducing suffering and losses and improving a community’s ability to become safer and stronger in the aftermath of increasingly catastrophic flooding events is at the forefront of everything the Foundation does. The Foundation also promotes sustainable management of the nation’s floodplains and watersheds. For more information regarding the ASFPM Foundation and the donation process, please contact George Riedel, Foundation Donor Coordinator, at [George@asfpmfoundation.org](mailto:George@asfpmfoundation.org).



## Show Me Workshops from the Floodplain Engineering and Mapping Section

### Week of November 1-5, 2021

#### PCSWMM Workshop

Kansas City Area – location TBD

November 2nd, 12 noon - 5pm

November 3rd, 8am - 12pm

#### 2D Workshop Beginner HEC-RAS 6.0

Kansas City Area - location TBD

November 3<sup>rd</sup>, 1pm - 5pm

November 4<sup>th</sup> 9am - 2pm

### Week of November 8-12, 2021

#### 2D Workshop Beginner HEC-RAS 6.0

SEMA SEOC, 2302 Militia Dr., Jefferson City, MO

November 8th, 12noon – 4pm

November 9th, 9am - 12 noon

#### 2D Workshop Advanced HEC-RAS 6.0

SEMA SEOC, 2302 Militia Dr., Jefferson City, MO

November 9th, 12noon - 4pm

November 10th, 9am - 2pm

# 2021 WORKSHOPS

The goal of the 2D workshops is to develop and provide technical training to state agencies, local officials and local technical communities to assist in the transition from 1D to 2D Flood Risk Identification and NFIP Floodplain Management.

Eight CEC's are provided for the HEC-RAS 2D and PC-SWMM workshop.

<http://bit.ly/MOSEMAOutreach>

#### The PC SWMM 2D models cover areas of large closed system conveyances coupled with 2D analysis surface storage areas and conveyance paths.

The accuracy of risk identification is greatly enhanced with 2-D modeling but needs to be integrated locally to maximize its potential for effective floodplain management. During this workshop you can expect:

- Broadened knowledge of Flood Risk 2-D modeling
- Hands on experience pulling information from new 2-D models
- Continuity of synergy from Risk MAP deliverables
- Understanding of the NFIP floodplain versus the results of the 2-D hydraulic models
- Continued building of partnerships through education and utilizing comments to assist policy changes

#### Training will include:

- Description and explanation of model development hydrology and hydraulics
- User Guide for basic needs of the floodplain managers and engineers to determine floodplain management answers from existing models
- Process to modify models for 3 typical floodplain management scenarios
- Lead the development of LOMR for modifications
- Facilitate a discussion of issues and concerns for follow up post training.

#### The HEC RAS 6- 2D models cover areas of predominate riverine conveyances and surface storage areas.

The accuracy of risk identification is greatly enhanced with 2-D modeling but needs to be integrated locally to maximize its potential for effective floodplain management. During this workshop you can expect:

- Broadened knowledge of Flood Risk 2-D modeling
- Hands on experience pulling information from new 2-D models
- Continuity of synergy from Risk MAP deliverables
- Understanding of the NFIP floodplain versus the results of the rain on grid 2-D hydraulic models
- Continued building of partnerships through education and utilizing comments to assist policy changes

#### Training will include:

- Description and explanation of model development hydrology and hydraulics
- User Guide for basic needs of the floodplain managers and engineers to determine floodplain management answers from existing models
- Process to modify models for 3 typical floodplain management scenarios
- Lead the development of LOMR for modifications
- Facilitate a discussion of issues and concerns for follow up post training.

#### DFIRM Data and Risk MAP Products to manage floodplains Workshop

These are ten-hour training workshops (Afternoon of day 1 and Morning of Day 2) for communities and/or individual groups wanting to learn how to utilize DFIRM data and Risk MAP Products to manage floodplains, identify mitigation actions and advance mitigation projects for their community.

These workshops will be hands-on computer classes showcasing DFIRM and Risk MAP Products with participants performing coordinated analysis on their communities' datasets resulting in specific actionable results for their community. These workshops will also include experience utilizing the Hazard Mitigation Profile Tool. Continuing Education Credits will be obtained for the workshop attendees through ASFP.

#### To Register Contact:

**Darryl Rockfield**  
SEMA  
573-526-9383

[Darryl.Rockfield@sema.dps.mo.gov](mailto:Darryl.Rockfield@sema.dps.mo.gov)





There are big changes coming to the Certified Floodplain Managers exam. After two years of planning, ASFPM is excited to announce that the transition to a digital CFM® exam has begun, and starting September 1st, exam candidates can begin scheduling their online exams. Moving to an online format provides greater convenience and flexibility to the more than 1,200 floodplain management professionals who take the CFM exam each year. No more having to wait for an exam date to be scheduled in your community or traveling an hour or more to take an exam in a neighboring state. As an added benefit, you will receive your results immediately upon completion of the exam, rather than the typical two-three weeks with the paper exams.

What you need to know:

Digital exams may be scheduled starting Sept. 1, 2021

**Existing paper exams that are already scheduled will take place as scheduled**

ASFPM will begin pilot testing digital exam offerings at chapter events later this year

Paper exams are targeted to be phased out in 2022

ASFPM has contracted with Scantron, a leading testing services company, to make the CFM exam available at its [test center locations](#) in the United States and Canada.

Digital Exam Options:

**Test Center:** Scantron provides secure internet-based delivery of the CFM® exam at Scantron's proctored internet-based test sites in the United States and Canada.

**Live Online-Proctored (LOP):** Live online-proctored (LOP) test administration includes a live proctor who monitors the entire examination process via web camera. With this option, candidates can take the exam from the comfort of their own home.

**In-Person Event:** ASFPM is evaluating the option of offering the digital exam at a hosted, in-person event such as a conference or workshop. When additional information is available regarding registration for the digital exam at in-person events, it will be provided.

<u>New CFM Exam Fee Schedule</u>	<b>Fees</b>	<b>Discounted ASFPM Member Fees</b>
Application Packet, Processing, & Digital Exam	\$565	\$185
Digital Exam Retake Fee	\$85	\$85
Biennial Renewal Fee	\$500	\$120 ( <i>\$80 early bird discount</i> )
Late Renewal Fee	\$75	\$75

The final Missouri-proctored paper CFM exam will be offered on November 19, 2021, at the State Emergency Management Agency. To register for the final paper exam offered in Missouri, contact [ASFPM](#).



Missouri Floodplain Management Section  
PO Box 116  
Jefferson City, Missouri 65102  
Phone: 573-526-9129

Social Media:



#### Mission Statement of the Floodplain Management Section:

The mission of Missouri's comprehensive floodplain management program is to make the State and its citizens less vulnerable to the impact of flooding through the effective administration of statewide floodplain management and to provide local communities with the tools and resources for managing, assessing, and planning for development in floodprone areas; to save lives; and to protect property.

#### Other NFIP Contact Information:

Ally Bishop, Region VII Regional Manager

Phone: 913-837-5220

[ally.bishop@associates.fema.dhs.gov](mailto:ally.bishop@associates.fema.dhs.gov)

Christopher (Chris) Parsons, NFIP Insurance Specialist

Phone: 816-283-7980

[christopher.parsons@fema.dhs.gov](mailto:christopher.parsons@fema.dhs.gov)

Todd Tucker, Natural Hazards Program Specialist

Phone: 816-283-7528

[todd.tucker@fema.dhs.gov](mailto:todd.tucker@fema.dhs.gov)

#### **Placing Fill in the Regulatory Floodway**

44CFR 59.1 defines "development" as "any man-made change to improved or unimproved real estate, including - but not limited to - buildings or other structures, mining, dredging, **filling**, grading, paving, excavation or drilling operations or storage of equipment or materials."

**Fill** is defined as material from any source (including the subject property) that raises the ground (natural grade) to or above the level of the Base (1%-annual-chance) Flood Elevation (BFE). Earthen fill is sometimes placed in a Special Flood Hazard Area (SFHA) to reduce flood risk to the filled area. The placement of fill is considered development and will require a Floodplain Development Permit under applicable Federal, state and local laws, ordinances, and regulations. The common construction practice of removing unsuitable existing material (topsoil) and backfilling with select structural material is not considered to be the placement of fill if the practice does not alter the existing (natural grade) elevation, which is at or above the BFE. Backfilling projects must also be permitted by the local Floodplain Administrator. **Fill** that is placed before the date of the first National Flood Insurance Program (NFIP) Flood Insurance Rate Map showing the area in a Special Flood Hazard Area, is in most circumstances considered to be natural grade. It should be noted that some communities limit the use of fill in the flood fringe to protect storage capacity or require compensatory storage.

**Fill is prohibited within the floodway unless it has been demonstrated that it will not result in any increase in flood levels.** A community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and Floodway revision, fulfills the requirements of such revisions as established under the provisions of 44 CFR § 65.12, and receives approval from FEMA. In other words, if a "No-Rise" is unobtainable, then the applicant must go through the Conditional Letter of Map Revision (CLOMR) process prior to the start of construction and then follow-up with the as-built Letter of Map Revision (LOMR) process.

**The take-away:** A Floodplain Development Permit is required for all proposed construction or other development, including the placement of fill, in the areas identified as A zones or AE zones on the Flood Insurance Rate Maps (FIRMs) for the community. No development shall be permitted except through the issuance of a Floodplain Development Permit, approved by the community's floodplain administrator. If the proposed development is also located within a regulatory floodway, an Engineering "No-Rise" Certificate is required before the proposed development can be permitted.

#### References:

Missouri Model 60.3(d) Floodplain Management Ordinance [Article 4 Section E](#): 44 CFR § 59.1: 44 CFR §65.12